

Table 5 characteristics of viscous adhesive compositions

	Composition amount (% by weight)			Kind of component (1)	Melt viscosity (cP at 160°C)	Softening point (°C)	Loop tack (gf)	Adhesive power (gf/10mm)	Relativity (minute)	Melt viscosity change ratio
	Component (1)	Component (2)	Component (3)							
Example 7	100	250	60	Polymer 22	3,200	79.0		1,580	4.3	-23
Example 8	100	250	60	Polymer 23	5,120	84.3		1,560	4.7	-25
Com. Ex. 16	100	250	60	Polymer 20	19,300	*1		1,940	1.9	*1
Com. Ex. 17	100	250	60	Polymer 21	3,500	77.5		1,690	3.5	+42
Com. Ex. 18	100	250	60	Polymer 24	7,800	88.8		1,400	10.5	-11
Com. Ex. 19	100	250	60	Polymer 25	17,200	115.4		300	100	-31
Com. Ex. 20	100	250	60	Polymer 26	3,100	87.5		760	4.0	+65
Example 9	100	250	60	Polymer 27	2,280	87.3	1,060	1,610	12.2	-5
Comp. Ex. 27										
Com. Ex. 21	100	250	60	Polymer 28	28,000	65.3	320	230	0.2	-15
Com. Ex. 22	100	250	60	Polymer 29	1,560	92.5	0	0	0	-8
Example 10	100	250	60	Polymer 30	2,150	87.1	1,020	1,590	10.2	-5
Com. Ex. 23	100	250	60	Polymer 31	1,480	74.0	1,070	1,510	1.4	-4
Com. Ex. 24	100	250	60	Polymer 32	75,000	106.5	260	1,610	168	-50
Example 11	100	250	60	Polymer 33	1,720	92.1	1,760	1,550	37.9	-5
Example 12	100	250	60	Polymer 34	4,320	99.8	560	1,840	116	-9
Example 13	100	250	60	Polymer 35	2,050	91.7	1,830	1,610	32.6	-11
Example 14	100	250	60	Polymer 36	4,680	97.6	670	1,870	104	-22
Example 15	100	50	30	Polymer 22	4,970	100.5	920	1,080	780	-26
Example 16	100	270	50	Polymer 22	2,970	84.4	1,220	1,790	4.8	-19
Example 17	100	350	0	Polymer 22	5,800	108.5	520	2,080	25.3	-26
Com. Ex. 25	100	10	20	Polymer 22	14,800	118.0	800	330	114	-62
Com. Ex. 26	100	450	70	Polymer 22	1,460	91.7	130	1,710	0.7	-10

Component (1) : Block copolymer

Component (2-1) : Alicyclic petroleum resin (Arcan M100, produced by Arakawa Kagaku)

Component (3) : Paraffin based process oil (PW-90, produced by Idemitsu Kosan)

\*1 Measurement was impossible due to gelation

Table 6 characteristics of viscous adhesive compositions

	Composition amount(% by weight)			Kind of component (1)	Melt viscosity ( $\eta$ , at 160°C)	Softening point (°C)	Loop back (gf)	Adhesive power (gf/10mm)	Retentivity (minute)	Melt viscosity change ratio (%)
	Component (1)	Component (2-2)	Component (3)							
Example 18	100	250	60	Polymer 22	2,600	90.4	1,560	1,380	4.1	-12
Example 19 Comp. Ex 28	100	250	60	Polymer 27	2,640	105.2	960	1,520	25.3	-18
Example 20	100	250	60	Polymer 30	2,360	103.0	950	1,490	9.6	-5
Example 21	100	250	60	Polymer 33	4,400	110.4	2,650	1,640	8.5	-18

Component (1) : Block copolymer

Component (2-2) : Aliphatic petroleum resin (Escolelets 1310, produced by Esso Kagaku)

Component (3) : Paraffin based process oil (PW-90, produced by Idemitsu Kosan)

Table A

	Polymer	Vinyl bonding amount (V)	Hydrogenation ratio (H)	Vinyl bond hydrogenation ratio (B)	Characteristics of viscous adhesive composition		
					Adhesive power (gf/10mm)	Retentivity (minute)	Melt viscosity change ratio
Example 7	22	50	60	97	1,580	4.3	-23
Com. Ex. 17	21	50	40	73	1,690	3.5	42
Com. Ex. 19	25	14	55	94	300	100	-31
Com. Ex. 20	26	85	60	67	760	4.0	65

Table B

	Polymer	Vinyl bonding amount (V)	Hydrogenation ratio (H)	Vinyl bond hydrogenation ratio (B)	Characteristics of viscous adhesive composition			
					Melt viscosity (cP at 160°C)	Softening point (°C)	Loop tack (gf)	Retentivity (minute)
Example 11	33	40	45	95	1720	92.1	1760	12.2
Example 9	27	36	46	98	2280	87.3	1060	37.9